

### REMARKS

This Amendment is responsive to the Office Action mailed January 12, 2007. Applicants request reconsideration of the application in view of the following remarks. Claims 1-11, 14, 20 and 21 are currently pending in this application and are subject to examination. Claims 10 and 11 were amended for clarity (antecedent basis) and claim 14 was amended to place it in independent form.

#### **Rejection of Claims 1-11, 14, 20 and 21 Under 35 U.S.C § 112, Second Paragraph**

Claims 1-11, 14, 20 and 21 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Specifically, the Examiner asserted that claims 1-11, 14, 20 and 21 were indefinite for failing to particularly point out what criteria the claimed indentation force deflection (IFD) values are based. The Applicants respectfully traverse this rejection with respect to all pending claims.

Indentation force deflection (IFD) and the test for this parameter are set out in the present specification *inter alia* at page 1, paragraph [0004] and page 4, paragraph [0038]. Paragraph [0004] describes “IFD” as “[h]ardness is typically measured as IFD (‘indentation force deflection’) or CFD (‘compression force deflection’). Specifically, IFD<sub>25</sub> is the force required to compress the foam to 25% of its original thickness or height.” Further, in paragraph [0038], IFD<sub>25</sub> is further defined as “IFD<sub>25</sub> or ‘indentation force deflection’ was determined in accord with a procedure similar to ASTM D 3574. In this case, foam was compressed by 25% of its original height and the force was reported after one minute.” These definitions are sufficient to give persons having ordinary skill in the art an understanding of the meaning

of “IFD.” Therefore, the pending claims that include this parameter are sufficiently definite, and Applicants respectfully request that the rejection of claims 1-11, 14, 20, and 21 under 35 U.S.C. 112, second paragraph be withdrawn.

**Rejection of Claims 1-11, 14, 20, and 21  
under 35 U.S.C. § 102(b)**

Claims 1-11, 14, 20, and 21 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,804,113 (issued Sep. 8, 1998) to Blackwell et al. Specifically, the Examiner asserts that Blackwell teaches polyurethane foams and “discloses preparations of polyurethane foams materials having densities as claimed prepared by mixing and reacting polyols meeting those as claimed by applicants, isocyanates including TDI and MDI in amounts as required by applicants’ claims, water as a blowing agent, catalysts, surfactants, fire retardants, and other additives under controlled and reduced pressures as claimed by applicants and wherein the reactive mixtures are placed against barrier films during formation”. Applicants respectfully traverse the Examiner’s rejection in view of the following remarks.

Claims 1-11 recite a process for producing a thermoformable polyurethane foam-containing sound insulative laminate, comprising, in part, “preparing a foam-forming composition,” “forming the polyurethane foam from the foam-forming composition” under vacuum conditions to create a lower density foam, and “joining a layer of the polyurethane foam to a barrier layer.” Claims 14, 20, and 21 recite sound insulators that have a certain low density polyurethane foam sheet or slab applied to a reinforcement or backing covering, such as by thermoforming.

Blackwell does not disclose each and every limitation of claims 1-11, 14, 20, and 21. Blackwell does not disclose preparation of any sound insulative laminates, and does not join a polyurethane foam to a barrier layer or covering to create a sound insulative laminate. Instead, Blackwell teaches that slabstock polyurethane can be made continuously in equipment that controls the foaming pressure range. (See Blackwell, Column 1, lines 9 through 67, and Column 2, lines 1-67, and Column 3, lines 1-53).

Blackwell permits the foam-forming mix to spill onto a bottom paper or film 10. This bottom paper or film 10 is conventional in slabstock foam equipment. It is not a “barrier layer” or “covering” within the scope of applicant’s claims. Blackwell’s bottom paper or film prevents the foam from sticking to the conveyor, and is removed from the foam bun when the foam is further processed for end use. The paper or film is not “joined” to the foam, such as by thermoforming, so as to remain connected to the foam. Moreover, the paper or film does not have high density to serve as a sound insulator to absorb airborne noise. “Barrier” in applicants’ “barrier layer” is intended to have sound adsorptive quality.

Thus, claims 1-11, 14, 20, and 21 distinguish from Blackwell. Even if the Examiner were to maintain his view that the bottom paper or film could constitute a “barrier layer” within the meaning of claim 1, particular attention is drawn to claims 9 and 20, which require certain high density materials for the barrier layer, and claims 10, 11 and 21 which require thermoforming to join the barrier layer (or “covering”) and the foam layer together. These features are not shown in Blackwell. Accordingly, Applicants respectfully request that the rejection of pending claims 1-11, 14, 20, and 21 under 35 U.S.C. § 102(b) in light of Blackwell et al. be withdrawn.

**Rejection of Claims 1-11, 14, 20,  
and 21 under 35 U.S.C. § 103(a)**

Claims 1-11, 14, 20, and 21 were rejected under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Patent No. 6,372,812 (issued Apr. 16, 2002) to Niederoest et al. According to the Examiner, Niederoest “discloses preparations of polyurethane foams materials prepared by mixing and reacting on a conveyor belt polyols meeting those as claimed by applicants, isocyanates including TDI and MDI in amounts as required by applicants’ claims, water as a blowing agent, catalysts, surfactants, fire retardants, and other additives under controlled and reduced pressures as claimed by applicants and wherein the reactive mixtures are placed against barrier films during formation.” Applicants respectfully disagree and traverse the Examiner’s rejection in view of the following remarks.

Niederoest does not suggest nor teach all the claim limitations. Niederoest does make polyurethane foams under vacuum conditions, but Niederoest does not join these foams to a “barrier layer” to form sound insulative laminates as required in Applicants’ claims. Rather, Niederoest wants foams for making furniture and seat cushions. Similar to the distinction made with respect to Blackwell above, Niederoest causes the foam-forming mixture to spill onto a moving conveyor. The foam that rises as it is conveyed on the conveyor is not “joined” to the conveyor to form a sound insulative laminate. It is not joined, such as by thermoforming. The conveyor 28 forms a continuous loop that returns to receive new foam material. (See Niederoest, Column 2, lines 54 through Column 3, lines 41).

Niederoest does not teach or suggest that the cushioning foams be laminated to a barrier layer material or that the cushioning foams be

laminated to improve sound insulative quality. As such, Niederoest does not suggest to or motivate a skilled person to make any laminate, much less such a laminate with sound insulative quality.

For these reasons, the Examiner has failed to establish a *prima facie* case of obviousness in view of Niederoest. Accordingly, Applicants respectfully request that the rejection of pending claims 1-11, 14, 20, and 21 under 35 U.S.C. § 103(a) in light of Niederoest, et al be withdrawn.

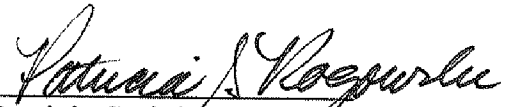
### **Conclusion**

In view of the foregoing, the rejections should be withdrawn and all pending claims should be allowed.

No fee is believed due for this response. If there are any fees due in connection with the filing of this response, such as a fee for an extension of time, such extension is requested and the fee should be charged to Deposit Account No. 03-2775.

Respectfully Submitted,  
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